

1 The listing of claims below will replace prior versions of claims in the  
2 application:

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4 ~~1. (CURRENTLY AMENDED) An apparatus comprising:~~  
5 ~~a first device;~~  
6 ~~a first connector coupled to the first device;~~  
7 ~~a second connector coupled to the first connector through a first plurality of~~  
8 ~~conductors, wherein alternating pairs of conductors are reversed at any position~~  
9 ~~between the first and second connectors; and~~  
10 ~~a second device coupled to the second connector through a second plurality~~  
11 ~~of conductors.~~

12  
13 2. (ORIGINAL) An apparatus as recited in claim 1 wherein the first  
14 device includes a plurality of differential drivers.

15  
16 3. (ORIGINAL) An apparatus as recited in claim 1 wherein the second  
17 device includes a plurality of differential receivers.

18  
19 4. (ORIGINAL) An apparatus as recited in claim 1 wherein the first  
20 device is an integrated circuit.

21  
22 5. (ORIGINAL) An apparatus as recited in claim 1 wherein the first  
23 device is an integrated circuit disposed on a substrate, wherein the substrate is  
24 electrically coupled to the integrated circuit and the first connector.  
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1 6. (ORIGINAL) An apparatus as recited in claim 1 wherein the second  
2 device is an integrated circuit.

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4 7. (ORIGINAL) An apparatus as recited in claim 1 wherein the first  
5 device has an inductive coupling coefficient substantially the same as the  
6 inductive coupling coefficient of the second device.

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8 8. (ORIGINAL) An apparatus as recited in claim 1 wherein the  
9 alternating pairs of conductors are reversed once between the first connector and  
10 the second connector.

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12 9. (ORIGINAL) An apparatus as recited in claim 1 wherein alternating  
13 pairs of conductors in the second plurality of conductors are reversed.

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15 10. (CURRENTLY AMENDED) An apparatus comprising:  
16 a first integrated circuit including a plurality of differential drivers;  
17 a first connector coupled to the first integrated circuit;  
18 a second connector coupled to the first connector through a plurality of  
19 electrical conductors, wherein alternating pairs of the electrical conductors are  
20 reversed at any position between the first and second connectors; and  
21 a second integrated circuit coupled to the second connector, wherein the  
22 second integrated circuit includes a plurality of differential receivers.

1 11. (ORIGINAL) An apparatus as recited in claim 10 further  
2 comprising a second plurality of electrical conductors coupled between the second  
3 connector and the second integrated circuit, wherein alternating pairs of the second  
4 plurality of electrical conductors are reversed.

5  
6 12. (ORIGINAL) An apparatus as recited in claim 10 further  
7 comprising a second plurality of electrical conductors coupled between the second  
8 connector and the second integrated circuit, wherein each pair of conductors  
9 includes an inverted conductor and a non-inverted conductor, each inverted  
10 conductor coupled to a non-inverted input of one of the differential receivers, and  
11 each non-inverted conductor coupled to an inverted input of one of the differential  
12 receivers.

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14 13. (ORIGINAL) An apparatus as recited in claim 10 wherein the first  
15 integrated circuit has an inductive coupling coefficient substantially the same as  
16 the inductive coupling coefficient of the second integrated circuit.

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18 14. (ORIGINAL) An apparatus as recited in claim 10 wherein the  
19 alternating pairs of electrical conductors are reversed once between the first  
20 connector and the second connector.

21  
22 15. (CURRENTLY AMENDED) An apparatus comprising:  
23 a printed circuit board;  
24 a plurality of connectors disposed on the printed circuit board;  
25

1 a first integrated circuit disposed on a first substrate, wherein the first  
2 substrate is configured to be coupled to one of the plurality of connectors;

3 a second integrated circuit disposed on a second substrate, wherein the  
4 second substrate is configured to be coupled to one of the plurality of connectors;  
5 and

6 a first plurality of electrical conductors coupled to the plurality of  
7 connectors, wherein alternating pairs of conductors between adjacent connectors  
8 have are reversed polarity at a location offset toward one of the plurality of  
9 connectors.

10  
11 16. (ORIGINAL) An apparatus as recited in claim 15 wherein the  
12 printed circuit board is a backplane.

13  
14 17. (ORIGINAL) An apparatus as recited in claim 15 further  
15 comprising a second plurality of conductors coupled between the first integrated  
16 circuit and one of the plurality of connectors, wherein alternating pairs of  
17 conductors have reversed polarity.

18  
19 18. (ORIGINAL) An apparatus as recited in claim 15 wherein the first  
20 substrate is a printed circuit board.

21  
22 19. (ORIGINAL) An apparatus as recited in claim 15 wherein the first  
23 substrate is a memory module.

1 20. (ORIGINAL) An apparatus as recited in claim 15 wherein the first  
2 integrated circuit is a memory device.

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4 21. (ORIGINAL) An apparatus as recited in claim 15 wherein the first  
5 integrated circuit has an inductive coupling substantially the same as the inductive  
6 coupling of the second integrated circuit.

7  
8 22. (PREVIOUSLY AMENDED) An apparatus comprising:  
9 a first device having an associated first inductive coupling coefficient; and  
10 a second device coupled to the first device through a plurality of electrical  
11 conductors, the second device having an associated second inductive coupling  
12 coefficient, wherein the first inductive coupling coefficient is adjusted to be  
13 substantially the same as the second inductive coupling coefficient.

14  
15 23. (ORIGINAL) An apparatus as recited in claim 22 wherein the first  
16 device includes a plurality of differential drivers, wherein each differential driver  
17 is coupled to a pair of electrical conductors.

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19 24. (ORIGINAL) An apparatus as recited in claim 22 wherein the  
20 second device includes a plurality of differential receivers, wherein each  
21 differential receiver is coupled to a pair of electrical conductors.

1 25. (ORIGINAL) An apparatus as recited in claim 22 further  
2 comprising a pair of connectors coupled between the first device and the second  
3 device, wherein a second plurality of electrical conductors are coupled between  
4 the pair of connectors, and wherein alternating pairs of electrical conductors are  
5 reversed.

6  
7 26. (CURRENTLY AMENDED) A method comprising:  
8 generating a plurality of differential signals;  
9 transmitting the plurality of differential signals through a first connector  
10 and a second connector to a plurality of differential receivers;  
11 reversing the polarity of alternating differential signals at any position  
12 between the first and second connectors; and  
13 reversing the polarity of alternating differential signals between the second  
14 connector and the plurality of differential receivers.

15  
16 27. (ORIGINAL) A method as recited in claim 26 wherein the first  
17 connector generated inductive coupling noise as the differential signals are  
18 transmitted through the first connector.

19  
20 28. (ORIGINAL) A method as recited in claim 26 wherein the second  
21 connector generated inductive coupling noise opposite the noise generated by the  
22 first connector as the differential signals are transmitted through the second  
23 connector.  
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1 29. (ORIGINAL) A method as recited in claim 26 further including  
2 decoding the plurality of differential signals.

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4 30. (ORIGINAL) A method as recited in claim 26 wherein a transmitter  
5 package transmits the plurality of differential signals and a receiver package  
6 receives the plurality of differential signals.

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8 31. (ORIGINAL) A method as recited in claim 30 further including  
9 modifying the transmitter package such that the coupling coefficient of the  
10 transmitter package is substantially the same as the receiver package.

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12 32. (ORIGINAL) A method comprising:  
13 modifying a transmitter package such that the coupling coefficient of the  
14 transmitter package is substantially the same as the coupling coefficient of a  
15 receiver package;

16 transmitting multiple pairs of differential signals using the transmitter  
17 package; and

18 receiving the multiple pairs of differential signals using the receiver  
19 package.

20  
21 33. (ORIGINAL) A method as recited in claim 32 wherein the  
22 transmitter package transmits multiple pairs of differential signals across a  
23 plurality of conductors.

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1 34. (ORIGINAL) A method as recited in claim 32 further comprising  
2 decoding the multiple pairs of differential signals.

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4 35. (ORIGINAL) A method as recited in claim 32 wherein the  
5 differential signals are transmitted through a pair of connectors on a plurality of  
6 conductors, wherein alternating pairs of conductors are reversed between the pair  
7 of connectors.

8  
9 36. (NEW) An apparatus as recited in claim 1 wherein at least one pair of  
10 conductors are reversed at a location offset toward the first connector and at least  
11 one pair of conductors are reversed at a location offset toward the second  
12 connector.

13  
14 37. (NEW) An apparatus as recited in claim 10 wherein at least one pair  
15 of electrical conductors are reversed at a location offset toward the first connector  
16 and at least one pair of electrical conductors are reversed at a location offset  
17 toward the second connector.

18  
19 38. (NEW) A method as recited in claim 26 wherein reversing the polarity  
20 of alternating differential signals includes reversing the polarity of at least one  
21 differential signal at a location offset toward the first connector and reversing the  
22 polarity of at least one differential signal at a location offset toward the second  
23 connector.